## Overweight and Obesity

### **OVERWEIGHT OR OBESE**

Definition: Overweight or obese is defined as respondents who report having a Body Mass Index (BMI) of 25.0 or above. Body Mass Index (BMI) is calculated by taking a person's body weight in pounds divided by his or her height in inches divided by height in inches (again) times 703 (i.e., ((wt/ht)/ht x 703).

### **Prevalence of Overweight or Obese**

- South Dakota 62.8%
- o Nationwide median 61.4%

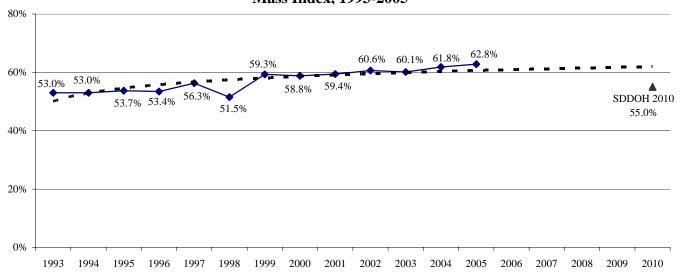
### South Dakota Department of Health 2010 Initiative

Reduce the percent of adults who are overweight or obese to 55 percent.

### **Trend Analysis**

Overall, the percent of respondents who are overweight or obese has been increasing since the question was first asked in 1993. South Dakota has not met the *South Dakota Department of Health 2010 Initiative* of 55 percent.

Figure 9
Percent of Respondents Who Are Overweight or Obese Based on Body
Mass Index, 1993-2005



 $Source: The\ Behavioral\ Risk\ Factor\ Surveillance\ System,\ South\ Dakota\ Department\ of\ Health,\ 1993-2005$ 

### **Demographics**

#### Gender

Males exhibit a significantly higher prevalence of those who are overweight or obese than females. This difference is shown throughout many demographic groups including those with a household income of \$35,000 or more and those with a high school education or higher.

### Age

The prevalence of overweight or obesity increases as age increases until the 55-64 age group is reached, at which time the prevalence decreases as age increases. This includes a significant increase when the 25-34 age group is reached and then a significant decrease with the 75 and older population. Females show a significant increase when the 55-64 age group is reached.

### Race

American Indians exhibit a significantly higher prevalence of those who are overweight or obese than do whites. This racial difference is much more evident in females than males.

### Region

Those in the central region demonstrate a very high prevalence of those who are overweight or obese, while those in the southeast and west regions show a very low prevalence. Also, females in the American Indian counties region show a very high prevalence of overweight or obesity.

### Household Income

The prevalence of those overweight or obese does not seem to follow a consistent pattern as household income increases. However, females in the higher income groups do seem to show a lower prevalence than those in the lower groups.

### **Education**

The prevalence of females who are overweight or obese generally decreases as education increases, but this association does not seem to hold true for males.

# **Employment Status**

Those who are employed for wages, self-employed, unemployed, retired, or unable to work exhibit a very high prevalence of overweight or obesity, while those who are students show a very low prevalence.

### Marital Status

Those who are widowed or have never been married demonstrate a very low prevalence of those who are overweight or obese, while those who are married show a very high prevalence. These differences are much more evident with males than females.

Table 14										
Respondents Who Are Overweight or Obese, 2005										
		Tota	l		Male			Femal	e	
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
Total	6,644	62.8	(61.2-64.5)	2,818	72.0	(69.4-74.4)	3,826	53.6	(51.5-55.6)	
Age										
18-24	313	43.0	(36.4-49.8)	124	46.8	(36.6-57.3)	189	38.9	(31.2-47.3)	
25-34	847	62.2	(58.2-66.0)	364	72.9	(67.1-77.9)	483	50.4	(45.3-55.5)	
35-44	1,100	65.4	(62.1-68.6)	493	76.9	(72.5-80.8)	607	53.2	(48.5-57.8)	
45-54	1,289	67.6	(64.6-70.5)	614	79.7	(75.8-83.2)	675	54.5	(50.1-58.8)	
55-64	1,128	73.3	(70.2-76.2)	512	80.3	(76.0-84.0)	616	65.7	(61.2-69.9)	
65-74	950	70.4	(66.9-73.6)	403	77.8	(72.9-82.1)	547	63.4	(58.6-67.9)	
75+	998	60.8	(57.2-64.2)	301	69.5	(63.2-75.1)	697	55.1	(50.8-59.3)	
Race										
White	5,947	62.3	(60.6-64.0)	2,531	71.7	(69.0-74.3)	3,416	52.8	(50.6-54.9)	
American Indian	481	74.0	(67.6-79.6)	195	76.5	(66.0-84.5)	286	71.5	(63.5-78.3)	
Region										
Southeast	1,510	61.5	(58.3-64.6)	653	70.5	(65.4-75.2)	857	51.6	(47.6-55.6)	
Northeast	1,472	63.3	(60.1-66.3)	590	75.2	(70.8-79.1)	882	52.6	(48.5-56.7)	
Central	1,363	68.8	(65.7-71.8)	613	79.1	(74.7-82.9)	750	57.6	(53.4-61.7)	
West	1,614	60.8	(57.9-63.7)	664	67.9	(63.3-72.2)	950	54.0	(50.3-57.7)	
American Indian Counties	685	67.6	(62.0-72.7)	298	71.6	(62.6-79.1)	387	63.1	(56.2-69.6)	

Table 14 (continued)									
	Respon	dents	Who Are (	Overwei	ght or	Obese, 200	05		
	•	Tota		Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Household Income									
Less than \$10,000	356	62.8	(55.5-69.6)	101	71.7	(58.3-82.1)	255	58.5	(50.0-66.6)
\$10,000-\$14,999	451	63.5	(55.6-70.8)	131	61.7	(45.4-75.8)	320	64.8	(57.9-71.1)
\$15,000-\$19,999	466	62.0	(56.2-67.4)	177	68.7	(59.7-76.5)	289	57.0	(49.4-64.2)
\$20,000-\$24,999	617	62.8	(57.5-67.8)	248	66.9	(57.9-74.8)	369	59.3	(52.8-65.5)
\$25,000-\$34,999	918	64.1	(59.6-68.4)	411	69.5	(62.7-75.6)	507	58.1	(52.2-63.8)
\$35,000-\$49,999	1,196	66.5	(62.8-69.9)	562	76.6	(71.4-81.0)	634	55.1	(50.1-60.1)
\$50,000-\$74,999	1,014	66.0	(62.3-69.6)	496	78.5	(73.4-82.8)	518	51.1	(45.9-56.3)
\$75,000+	849	61.9	(57.6-66.0)	466	74.1	(67.8-79.6)	383	42.6	(37.0-48.3)
<b>Education</b>									
8th Grade or Less	309	67.2	(60.5-73.2)	151	74.2	(65.2-81.6)	158	57.9	(48.0-67.2)
Some High School	394	57.4	(49.3-65.0)	173	63.0	(51.0-73.6)	221	49.9	(40.6-59.3)
High School or G.E.D.	2,114	65.4	(62.4-68.2)	957	72.6	(67.8-76.9)	1,157	57.1	(53.5-60.8)
Some Post-High School	1,900	61.9	(58.8-65.0)	712	72.0	(66.8-76.7)	1,188	53.4	(49.5-57.3)
College Graduate	1,922	62.1	(59.4-64.8)	822	73.4	(69.4-77.1)	1,100	50.7	(47.1-54.3)
<b>Employment Status</b>									
Employed for Wages	3,225	63.4	(61.1-65.6)	1,374	73.1	(69.7-76.3)	1,851	52.8	(49.9-55.8)
Self-employed	876	69.2	(65.2-73.0)	600	75.4	(70.7-79.6)	276	54.3	(46.9-61.5)
Unemployed	161	65.0	(52.2-75.9)	*	*	*	*	*	*
Homemaker	384	55.9	(49.9-61.8)	*	*	*	*	*	*
Student	124	34.0	(24.0-45.7)	*	*	*	*	*	*
Retired	1,600	64.5	(61.8-67.2)	602	74.0	(69.8-77.7)	998	56.5	(52.9-60.0)
Unable to Work	272	69.6	(62.7-75.6)	117	76.4	(66.5-84.1)	155	63.4	(53.9-72.0)
Marital Status									
Married/Unmarried Couple	3,988	65.5	(63.6-67.2)	1,847	76.7	(74.2-79.0)	2,141	53.6	(51.0-56.1)
Divorced/Separated	934	63.5	(59.6-67.2)	397	71.1	(65.3-76.2)	537	57.0	(51.8-62.0)
Widowed	937	59.4	(55.7-62.9)	161	68.7	(59.7-76.4)	776	57.0	(53.0-60.9)
Never Married	777	54.0	(48.1-59.7)	409	57.3	(48.9-65.3)	368	48.8	(41.4-56.3)

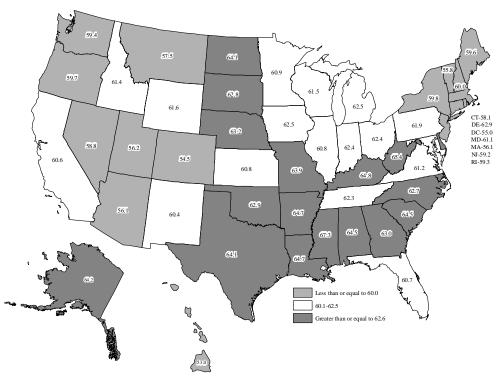
Note: \*Results based on sample sizes less than 100 have been suppressed.

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005

### **National Statistics**

The national median for respondents who are overweight or obese was 61.4 percent. South Dakota had 62.8 percent of respondents who are overweight or obese. Hawaii had the lowest percent of respondents who are overweight or obese with 53 percent, while Mississippi had the highest percent of respondents who are overweight or obese with 67.3 percent.

Figure 10 Nationally, Respondents Who Are Overweight or Obese, 2005



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005

### **Further Analysis**

Following are data illustrating the percent of those who are overweight or obese for various health behaviors and conditions. For example, 77.4 percent of respondents who have hypertension are overweight or obese, while 58 percent of respondents who do not have hypertension are overweight or obese.

Table 15								
Overweight or Obese for Selected Health Behaviors and Conditions, 2005								
Health Behavior or Condition	# Respondents	% Overweight or Obese	95% CI					
Fair or Poor Health Status	1,086	69.9	66.1-73.3					
Excellent, Very Good, or Good Health Status	5,551	61.8	60.0-63.6					
Physical Health Not Good for 30 days of the past 30	498	66.2	60.7-71.4					
Physical Health Not Good for 0-29 days of the past 30	6,090	62.5	60.8-64.2					
Mental Health Not Good for 20-30 days of the past 30	343	62.1	55.0-68.6					
Mental Health Not Good for 0-19 days of the past 30	6,263	62.9	61.2-64.5					
Usual Activities Unattainable for 10-30 Days of the Past 30	450	73.0	67.6-77.8					
Usual Activities Unattainable for 0-9 Days of the Past 30	6,161	62.2	60.5-63.9					
Dissatisfied / Very Dissatisfied with Life	257	61.8	52.8-70.0					
Satisfied / Very Satisfied with Life	6,203	62.6	60.9-64.2					
No Leisure Time Physical Activity	1,690	69.7	66.8-72.6					
Leisure Time Physical Activity	4,953	60.9	59.0-62.8					
No Moderate Physical Activity	3,470	68.0	65.8-70.0					
Moderate Physical Activity	2,859	56.5	53.9-59.0					
No Vigorous Physical Activity	5,196	66.0	64.2-67.7					
Vigorous Physical Activity	1,248	52.0	48.0-55.9					

Health Behavior or Condition	Table 15 (continued)								
Health Behavior or Condition	Overweight or Obese for Selected Hea	lth Behaviors and	d Conditions, 20	05					
At Least Five Servings of Fruits and Vegetables   1,531   61.2   57.8-64.4     Not Heard of "Healthy South Dakota" Program   4,316   63.0   60.9-65.0     Gentary of "Healthy South Dakota" Program   2,056   61.4   58.5-64.2     Current Smoker   1,280   55.7   51.8-59.4     Former Smoker   1,280   55.7   51.8-59.4     Former Smoked   3,482   61.2   58.9-63.5     Smokeless Tobacco Use   360   74.0   66.7-80.3     Smokeless Tobacco Use   6,097   61.8   60.0-63.4     Drank Alcohol in Past 30 Days   3,575   62.8   60.6-65.0     Drank Alcohol in Past 30 Days   3,575   62.8   60.6-65.0     No Alcohol in Past 30 Days   3,059   62.8   60.4-65.2     Binge Drinker   900   63.7   59.0-68.2     Not a Binge Drinker   900   63.7   59.0-68.2     Not a Binge Drinker   5,679   63.0   61.2-64.6     Heavy Drinker   5,679   63.0   61.2-64.6     Heavy Drinker   5,679   63.0   61.2-64.6     Heavy Drinker   5,679   63.0   61.2-64.6     How Heavy Drinker   5,679   63.0   61.2-64.6     Heavy Drinker   5,679   63.0   61.2-64.6     Heavy Drinker   5,679   63.0   61.2-64.6     How Heavy Drinker   5,679   63.0   61.2-64.6     Heavy Drinker   5,679   63.0   63.1   61.4-64.7     Hypertension   2,130   77.4   75.2-79.5     Not 13 Hings and Precautions Against West Nile Virus   2,037   62.7   59.5-65.7     No High Blood Cholesterol   3,303   61.3   59.1-63.4     Not Taking any Precautions Against West Nile Virus   4,390   62.5   60.5-64.8     How Health Insurance (18-64)   400   60.2   53.0-69.9     Hall Insurance (18-64)   400   60.2   53.0-69.9     Health Insurance (18-64)   400   60.2   53.0-69.9     Health Insurance (18-64)   400   60.2   53.0-69.9     Health Insurance (18-64)   40.0   60.2   50.5-65.7     Health I	Health Behavior or Condition	# Respondents		95% CI					
Not Heard of "Healthy South Dakota" Program   4.316   63.0   60.9-65.0     Heard of "Healthy South Dakota" Program   2.056   61.4   58.5-64.2     Current Smoker   1,280   55.7   51.8-59.4     Former Smoker   1,864   71.9   69.1-74.6     Rover Smoked   3,482   61.2   58.9-63.5     Smokeless Tobacco Use   360   74.0   66.7-80.3     No Smokeless Tobacco Use   6,097   61.8   600-63.0     Drank Alcohol in Past 30 Days   3,575   62.8   606-65.0     No Alcohol in Past 30 Days   3,059   62.8   604-65.2     Binge Drinker   900   63.7   59.0-68.2     Not a Binge Drinker   5,679   63.0   61.2-64.6     Heavy Drinker   235   60.2   500-69.5     Not a Heavy Drinker   6,308   63.1   61.4-64.7     Hypertension   2,130   77.4   75.2-79.5     No Hypertension   4,508   58.0   56.0-60.0     High Blood Cholesterol   2,017   74.5   72.2-76.7     No High Blood Cholesterol   3,303   61.3   591-63.4     Not Taking any Precautions Against West Nile Virus   4,390   62.5   60.5-64.4     No Health Insurance (18-64)   400   60.2   530-69.5     Employer Based Health Insurance Coverage (18-64)   409   62.2   60.5-64.5     Employer Based Health Insurance Plan (18-64)   400   60.2   530-69.5     Employer Based Health Insurance Plan (18-64)   412   72.8   62.6-81.0     Medicard or Medical Assistance (18-64)   175   55.6   43.8-66.8     Fiv Shot (5+)   1,463   65.6   62.2-70.8     Fiv Shot (5+)   1,463   65.6   62.2-70.8     Fiv Shot (5+)   1,258   64.4   60.7-64.5     Fiv Shot (65+)   1,268   60.6   60.6   62.2-70.8     Fiv Shot (65+)   1,268   60.4   60.7-64.5     Fiv Shot (65+)   1,268   60	Less Than Five Servings of Fruits and Vegetables	5,039	63.1	61.2-64.9					
Heard of "Healthy South Dakota" Program		1,531	61.2	57.8-64.4					
Heard of "Healthy South Dakota" Program		4,316	63.0	60.9-65.0					
Former Smoker		2,056	61.4	58.5-64.2					
Former Smoker	Current Smoker	1,280	55.7	51.8-59.4					
Smokeless Tobacco Use	Former Smoker	1,864	71.9						
No Smokeless Tobacco Use	Never Smoked	3,482	61.2	58.9-63.5					
Drank Alcohol in Past 30 Days   3,575   62.8   60.6-65.0   No Alcohol in Past 30 Days   3,059   62.8   60.4-65.2   Binge Drinker   900   63.7   59.0-68.2   Not a Binge Drinker   900   63.7   59.0-68.2   Not a Binge Drinker   5,679   63.0   61.2-64.6   Heavy Drinker   235   60.2   50.0-69.5   Not a Heavy Drinker   6,308   63.1   61.4-64.7   Hypertension   2,130   77.4   75.2-79.5   Not Hypertension   4,508   58.0   56.0-60.0   High Blood Cholesterol   2,017   74.5   72.2-76.7   No High Blood Cholesterol   3,303   61.3   591-63.4   Not Taking any Precautions Against West Nile Virus   2,037   62.7   59.5-65.7   Taking Precautions Against West Nile Virus   4,390   62.5   60.5-64.4   Not Health Insurance (18-64)   400   60.2   53.0-66.9   Health Insurance (18-64)   4,098   62.2   60.2-64.3   Employer Based Health Insurance Coverage (18-64)   42   72.8   62.6-81.0   Medicaid or Medical Assistance (18-64)   142   72.8   62.6-81.0   Medicaid or Medical Assistance (18-64)   175   55.6   63.8-65.5   Medicaer (18-64)   175   55.6   63.8-65.8   The Military, CHAMPUS, TriCare, or the VA (18-64)   210   66.3   55.9-75.4   The Indian Health Service (18-64)   126   66.3   55.9-75.4   The Indian Health Service (18-64)   126   66.6   62.2-70.8   Flus Shot (65+)   1,463   65.6   62.8-68.4   No Pneumonia Shot (65+)   1,258   64.4   61.3-67.5   Diabetes   5,88   83.6   79.7-86.9   No Diabetes   6,055   61.4   59.7-63.1   Current Asthma   492   63.2   59.3-77.7   Never Had Asthma   5,951   62.6   60.6-6.3   Previously Had a Heart Attack   427   71.9   60.7-63.1   Current Asthma   492   63.2   59.3-77.7   Never Had Asthma   5,951   62.6   60.6-6.3   No Purshously Had a Heart Attack   427   71.9   60.7-63.1   Current Asthma   492   63.2   59.3-77.7   Never Had Asthma   5,951   62.6   60.6-6.3   No Purshously Had a Heart Attack   6,177   62.4   60.7-64.1   Previously Had a Stroke   6,385   62.8   61.1-64.4   Previously Had a Stroke   6,385   62.8   61.1-64.4   Previously Had a Stroke   6,385   62.8   61.1-64.4   Previously Had a Stro	Smokeless Tobacco Use	360	74.0	66.7-80.3					
No Alcohol in Past 30 Days   3,059   62.8   60.4-65.2	No Smokeless Tobacco Use	6,097	61.8	60.0-63.4					
No Alcohol in Past 30 Days   3,059   62.8   60.4-65.2	Drank Alcohol in Past 30 Days	3,575	62.8	60.6-65.0					
Not a Binge Drinker		3,059	62.8	60.4-65.2					
Not a Binge Drinker	·	900	63.7	59.0-68.2					
Heavy Drinker	C	5,679							
Not a Heavy Drinker									
Hypertension									
No Hypertension	·		77.4						
High Blood Cholesterol   2,017   74.5   72.2-76.7     No High Blood Cholesterol   3,303   61.3   59.1-63.4     Not Taking any Precautions Against West Nile Virus   2,037   62.7   59.5-65.7     Taking Precautions Against West Nile Virus   4,390   62.5   60.5-64.4     No Health Insurance (18-64)   400   60.2   53.0-66.9     Health Insurance (18-64)   4,098   62.2   60.2-64.3     Employer Based Health Insurance Coverage (18-64)   2,680   62.1   59.6-64.5     Private Health Insurance Plan (18-64)   618   60.1   54.5-65.5     Medicare (18-64)   142   72.8   62.6-81.0     Medicaid or Medical Assistance (18-64)   175   55.6   43.8-66.8     The Military, CHAMPUS, TriCare, or the VA (18-64)   120   66.3   55.9-75.4     The Indian Health Service (18-64)   226   67.8   57.7-76.4     No Flu Shot (65+)   480   64.2   59.1-68.9     Flu Shot (65+)   1,463   65.6   62.8-68.4     No Pneumonia Shot (65+)   1,258   64.4   61.3-67.5     Diabetes   588   83.6   79.7-86.9     No Diabetes   5,951   62.6   66.6   62.2-70.8     Former Asthma   492   63.2   56.7-69.2     Former Asthma   492   63.2   56.7-63.1     Current Asthma   5,951   62.6   60.8-63.3     Previously Had a Heart Attack   6,177   62.4   60.7-63.1     Have Angina or Coronary Heart Disease   435   70.0   64.7-74.9     Do Not Have Angina or Coronary Heart Disease   6,154   62.4   60.7-64.1     Previously Had a Stroke   6,385   62.8   61.1-64.4     Arthritis   4,251   59.3   57.2-61.3     Arthritis - Activities Limited   5,459   61.0   59.2-62.8     Physical, Mental, or Emotional Disability   1,525   69.1   65.7-72.3	7.1								
No High Blood Cholesterol         3,303         61.3         59.1-63.4           Not Taking any Precautions Against West Nile Virus         2,037         62.7         59.5-65.7           Taking Precautions Against West Nile Virus         4,390         62.5         60.5-64.4           No Health Insurance (18-64)         400         60.2         53.0-66.9           Health Insurance (18-64)         4,098         62.2         60.2-64.3           Employer Based Health Insurance Coverage (18-64)         2,680         62.1         59.6-64.5           Private Health Insurance Plan (18-64)         618         60.1         54.5-65.5           Private Health Insurance Plan (18-64)         142         72.8         62.6-81.0           Medicard or Medical Assistance (18-64)         175         55.6         43.8-66.8           The Military, CHAMPUS, TriCare, or the VA (18-64)         210         66.3         55.9-75.4           The Indian Health Service (18-64)         226         67.8         57.7-76.4           No Flu Shot (65+)         480         64.2         59.1-68.9           Flu Shot (65+)         1,463         65.6         62.8-8.4           No Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         6,055 <td< td=""><td>• •</td><td></td><td></td><td></td></td<>	• •								
Not Taking any Precautions Against West Nile Virus         2,037         62.7         59.5-65.7           Taking Precautions Against West Nile Virus         4,390         62.5         60.5-64.4           No Health Insurance (18-64)         400         60.2         53.0-66.9           Health Insurance (18-64)         4,098         62.2         60.2-64.3           Employer Based Health Insurance Coverage (18-64)         2,680         62.1         59.6-64.5           Private Health Insurance Plan (18-64)         618         60.1         54.5-65.5           Medicare (18-64)         142         72.8         62.6-81.0           Medicaid or Medical Assistance (18-64)         175         55.6         43.8-66.8           The Military, CHAMPUS, TriCare, or the VA (18-64)         210         66.3         55.9-75.4           The Indian Health Service (18-64)         226         67.8         57.7-76.4           No Flu Shot (65+)         480         64.2         59.1-68.9           Flu Shot (65+)         1,463         65.6         62.8-68.4           No Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         588         83.6         79.7-86.9           No Diabetes         6,055         61.4         59.7-63.1 <td></td> <td></td> <td></td> <td></td>									
Taking Precautions Against West Nile Virus         4,390         62.5         60.5-64.4           No Health Insurance (18-64)         400         60.2         53.0-66.9           Health Insurance (18-64)         4,098         62.2         60.2-64.3           Employer Based Health Insurance Coverage (18-64)         2,680         62.1         59.6-64.5           Private Health Insurance Plan (18-64)         618         60.1         54.5-65.5           Medicare (18-64)         142         72.8         62.6-81.0           Medicaid or Medical Assistance (18-64)         175         55.6         43.8-66.8           The Military, CHAMPUS, TriCare, or the VA (18-64)         210         66.3         55.9-75.4           The Indian Health Service (18-64)         226         67.8         57.7-76.4           No Flu Shot (65+)         480         64.2         59.1-68.9           Flu Shot (65+)         1,463         65.6         62.8-68.4           No Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         588         83.6         79.7-86.9           No Diabetes         6,055         61.4         59.7-63.1           Current Asthma         492         63.2         56.7-69.2           Forme									
No Health Insurance (18-64)         400         60.2         53.0-66.9           Health Insurance (18-64)         4,098         62.2         60.2-64.3           Employer Based Health Insurance Coverage (18-64)         2,680         62.1         59.6-64.5           Private Health Insurance Plan (18-64)         618         60.1         54.5-65.5           Medicare (18-64)         142         72.8         62.6-81.0           Medicaid or Medical Assistance (18-64)         175         55.6         43.8-66.8           The Military, CHAMPUS, TriCare, or the VA (18-64)         210         66.3         55.9-75.4           The Indian Health Service (18-64)         226         67.8         57.7-76.4           No Flu Shot (65+)         480         64.2         59.1-68.9           Flu Shot (65+)         1,463         65.6         62.8-68.4           No Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         588         83.6         79.7-86.9           No Diabetes         6,055         61.4         59.7-63.1           Current Asthma         171         69.2         59.3-77.7           Never Had Asthma         171         69.2         59.3-77.7           Never Had a Heart Attack									
Health Insurance (18-64)	· ·								
Employer Based Health Insurance Coverage (18-64)         2,680         62.1         59.6-64.5           Private Health Insurance Plan (18-64)         618         60.1         54.5-65.5           Medicare (18-64)         142         72.8         62.6-81.0           Medicaid or Medical Assistance (18-64)         175         55.6         43.8-66.8           The Military, CHAMPUS, TriCare, or the VA (18-64)         210         66.3         55.9-75.4           The Indian Health Service (18-64)         226         67.8         57.7-76.4           No Flu Shot (65+)         480         64.2         59.1-68.9           Flu Shot (65+)         1,463         65.6         62.8-68.4           No Pneumonia Shot (65+)         626         66.6         62.2-70.8           Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         588         83.6         79.7-86.9           No Diabetes         66,055         61.4         59.7-63.1           Current Asthma         492         63.2         56.7-69.2           Former Asthma         171         69.2         59.3-77.7           Never Had A Heart Attack         427         71.9         66.4-76.8           Never Had a Heart Attack         61	` '								
Private Health Insurance Plan (18-64)         618         60.1         54.5-65.5           Medicare (18-64)         142         72.8         62.6-81.0           Medicaid or Medical Assistance (18-64)         175         55.6         43.8-66.8           The Military, CHAMPUS, TriCare, or the VA (18-64)         210         66.3         55.9-75.4           The Indian Health Service (18-64)         226         67.8         57.7-76.4           No Flu Shot (65+)         480         64.2         59.1-68.9           Flu Shot (65+)         1,463         65.6         62.8-68.4           No Pneumonia Shot (65+)         626         66.6         62.2-70.8           Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         588         83.6         79.7-86.9           No Diabetes         6,055         61.4         59.7-63.1           Current Asthma         492         63.2         56.7-69.2           Former Asthma         171         69.2         59.3-77.7           Never Had Asthma         5,951         62.6         60.8-64.3           Previously Had a Heart Attack         427         71.9         66.4-76.8           Never Had A Heart Attack         6,177         62.4 <td>, ,</td> <td></td> <td></td> <td></td>	, ,								
Medicare (18-64)         142         72.8         62.6-81.0           Medicaid or Medical Assistance (18-64)         175         55.6         43.8-66.8           The Military, CHAMPUS, TriCare, or the VA (18-64)         210         66.3         55.9-75.4           The Indian Health Service (18-64)         226         67.8         57.7-76.4           No Flu Shot (65+)         480         64.2         59.1-68.9           Flu Shot (65+)         1,463         65.6         62.8-68.4           No Pneumonia Shot (65+)         626         66.6         62.2-70.8           Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         588         83.6         79.7-86.9           No Diabetes         6,055         61.4         59.7-63.1           Current Asthma         492         63.2         56.7-69.2           Former Asthma         171         69.2         59.3-77.7           Never Had Asthma         5,951         62.6         60.8-64.3           Previously Had a Heart Attack         427         71.9         66.4-76.8           Never Had a Heart Attack         6,177         62.4         60.7-64.1           Have Angina or Coronary Heart Disease         6,154         62.4<									
Medicaid or Medical Assistance (18-64)         175         55.6         43.8-66.8           The Military, CHAMPUS, TriCare, or the VA (18-64)         210         66.3         55.9-75.4           The Indian Health Service (18-64)         226         67.8         57.7-76.4           No Flu Shot (65+)         480         64.2         59.1-68.9           Flu Shot (65+)         1,463         65.6         62.8-68.4           No Pneumonia Shot (65+)         626         66.6         62.2-70.8           Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         5,858         83.6         79.7-86.9           No Diabetes         6,055         61.4         59.7-63.1           Current Asthma         492         63.2         56.7-69.2           Former Asthma         171         69.2         59.3-77.7           Never Had Asthma         5,951         62.6         60.8-64.3           Previously Had a Heart Attack         427         71.9         66.4-76.8           Never Had a Heart Attack         6,177         62.4         60.7-64.1           Have Angina or Coronary Heart Disease         435         70.0         64.7-74.9           Do Not Have Angina or Coronary Heart Disease <t< td=""><td></td><td></td><td></td><td></td></t<>									
The Military, CHAMPUS, TriCare, or the VA (18-64)         210         66.3         55.9-75.4           The Indian Health Service (18-64)         226         67.8         57.7-76.4           No Flu Shot (65+)         480         64.2         59.1-68.9           Flu Shot (65+)         1,463         65.6         62.8-68.4           No Pneumonia Shot (65+)         626         66.6         62.2-70.8           Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         588         83.6         79.7-86.9           No Diabetes         6,055         61.4         59.7-63.1           Current Asthma         492         63.2         56.7-69.2           Former Asthma         171         69.2         59.3-77.7           Never Had Asthma         5,951         62.6         60.8-64.3           Previously Had a Heart Attack         427         71.9         66.4-76.8           Never Had a Heart Attack         6,177         62.4         60.7-64.1           Have Angina or Coronary Heart Disease         6,154         62.4         60.7-64.1           Previously Had a Stroke         243         65.2         55.9-73.5           Never Had a Stroke         6,385         62.8									
The Indian Health Service (18-64)         226         67.8         57.7-76.4           No Flu Shot (65+)         480         64.2         59.1-68.9           Flu Shot (65+)         1,463         65.6         62.8-68.4           No Pneumonia Shot (65+)         626         66.6         62.2-70.8           Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         588         83.6         79.7-86.9           No Diabetes         6,055         61.4         59.7-63.1           Current Asthma         492         63.2         56.7-69.2           Former Asthma         171         69.2         59.3-77.7           Never Had Asthma         5,951         62.6         60.8-64.3           Previously Had a Heart Attack         427         71.9         66.4-76.8           Never Had a Heart Attack         6,177         62.4         60.7-64.1           Have Angina or Coronary Heart Disease         435         70.0         64.7-74.9           Do Not Have Angina or Coronary Heart Disease         6,154         62.4         60.7-64.1           Previously Had a Stroke         6,385         62.8         61.1-64.4           Arthritis         2,332         72.0         69.6-7									
No Flu Shot (65+)       480       64.2       59.1-68.9         Flu Shot (65+)       1,463       65.6       62.8-68.4         No Pneumonia Shot (65+)       626       66.6       62.2-70.8         Pneumonia Shot (65+)       1,258       64.4       61.3-67.5         Diabetes       588       83.6       79.7-86.9         No Diabetes       6,055       61.4       59.7-63.1         Current Asthma       492       63.2       56.7-69.2         Former Asthma       171       69.2       59.3-77.7         Never Had Asthma       5,951       62.6       60.8-64.3         Previously Had a Heart Attack       427       71.9       66.4-76.8         Never Had a Heart Attack       6,177       62.4       60.7-64.1         Have Angina or Coronary Heart Disease       435       70.0       64.7-74.9         Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis - Activities Limited       1,119       74.7       71.1-		226	67.8						
Flu Shot (65+)       1,463       65.6       62.8-68.4         No Pneumonia Shot (65+)       626       66.6       62.2-70.8         Pneumonia Shot (65+)       1,258       64.4       61.3-67.5         Diabetes       588       83.6       79.7-86.9         No Diabetes       6,055       61.4       59.7-63.1         Current Asthma       492       63.2       56.7-69.2         Former Asthma       171       69.2       59.3-77.7         Never Had Asthma       5,951       62.6       60.8-64.3         Previously Had a Heart Attack       427       71.9       66.4-76.8         Never Had a Heart Attack       6,177       62.4       60.7-64.1         Have Angina or Coronary Heart Disease       435       70.0       64.7-74.9         Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0 <td></td> <td>480</td> <td>64.2</td> <td>59.1-68.9</td>		480	64.2	59.1-68.9					
No Pneumonia Shot (65+)         626         66.6         62.2-70.8           Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         588         83.6         79.7-86.9           No Diabetes         6,055         61.4         59.7-63.1           Current Asthma         492         63.2         56.7-69.2           Former Asthma         171         69.2         59.3-77.7           Never Had Asthma         5,951         62.6         60.8-64.3           Previously Had a Heart Attack         427         71.9         66.4-76.8           Never Had a Heart Attack         6,177         62.4         60.7-64.1           Have Angina or Coronary Heart Disease         435         70.0         64.7-74.9           Do Not Have Angina or Coronary Heart Disease         6,154         62.4         60.7-64.1           Previously Had a Stroke         243         65.2         55.9-73.5           Never Had a Stroke         63.85         62.8         61.1-64.4           Arthritis         2,332         72.0         69.6-74.2           No Arthritis - Activities Limited         1,119         74.7         71.1-78.0           No Arthritis - Activities Limited         5,459         61.0 </td <td></td> <td>1,463</td> <td>65.6</td> <td></td>		1,463	65.6						
Pneumonia Shot (65+)         1,258         64.4         61.3-67.5           Diabetes         588         83.6         79.7-86.9           No Diabetes         6,055         61.4         59.7-63.1           Current Asthma         492         63.2         56.7-69.2           Former Asthma         171         69.2         59.3-77.7           Never Had Asthma         5,951         62.6         60.8-64.3           Previously Had a Heart Attack         427         71.9         66.4-76.8           Never Had a Heart Attack         6,177         62.4         60.7-64.1           Have Angina or Coronary Heart Disease         435         70.0         64.7-74.9           Do Not Have Angina or Coronary Heart Disease         6,154         62.4         60.7-64.1           Previously Had a Stroke         243         65.2         55.9-73.5           Never Had a Stroke         6,385         62.8         61.1-64.4           Arthritis         2,332         72.0         69.6-74.2           No Arthritis - Activities Limited         1,119         74.7         71.1-78.0           No Arthritis - Activities Limited         5,459         61.0         59.2-62.8           Physical, Mental, or Emotional Disability         1,525 <td></td> <td></td> <td>66.6</td> <td>62.2-70.8</td>			66.6	62.2-70.8					
No Diabetes       6,055       61.4       59.7-63.1         Current Asthma       492       63.2       56.7-69.2         Former Asthma       171       69.2       59.3-77.7         Never Had Asthma       5,951       62.6       60.8-64.3         Previously Had a Heart Attack       427       71.9       66.4-76.8         Never Had a Heart Attack       6,177       62.4       60.7-64.1         Have Angina or Coronary Heart Disease       435       70.0       64.7-74.9         Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3		1,258	64.4						
No Diabetes       6,055       61.4       59.7-63.1         Current Asthma       492       63.2       56.7-69.2         Former Asthma       171       69.2       59.3-77.7         Never Had Asthma       5,951       62.6       60.8-64.3         Previously Had a Heart Attack       427       71.9       66.4-76.8         Never Had a Heart Attack       6,177       62.4       60.7-64.1         Have Angina or Coronary Heart Disease       435       70.0       64.7-74.9         Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3	Diabetes	588	83.6	79.7-86.9					
Current Asthma       492       63.2       56.7-69.2         Former Asthma       171       69.2       59.3-77.7         Never Had Asthma       5,951       62.6       60.8-64.3         Previously Had a Heart Attack       427       71.9       66.4-76.8         Never Had a Heart Attack       6,177       62.4       60.7-64.1         Have Angina or Coronary Heart Disease       435       70.0       64.7-74.9         Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3	No Diabetes	6,055	61.4						
Former Asthma       171       69.2       59.3-77.7         Never Had Asthma       5,951       62.6       60.8-64.3         Previously Had a Heart Attack       427       71.9       66.4-76.8         Never Had a Heart Attack       6,177       62.4       60.7-64.1         Have Angina or Coronary Heart Disease       435       70.0       64.7-74.9         Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3	Current Asthma	492	63.2						
Previously Had a Heart Attack       427       71.9       66.4-76.8         Never Had a Heart Attack       6,177       62.4       60.7-64.1         Have Angina or Coronary Heart Disease       435       70.0       64.7-74.9         Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3	Former Asthma		69.2						
Previously Had a Heart Attack       427       71.9       66.4-76.8         Never Had a Heart Attack       6,177       62.4       60.7-64.1         Have Angina or Coronary Heart Disease       435       70.0       64.7-74.9         Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3									
Never Had a Heart Attack       6,177       62.4       60.7-64.1         Have Angina or Coronary Heart Disease       435       70.0       64.7-74.9         Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis       4,251       59.3       57.2-61.3         Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3									
Have Angina or Coronary Heart Disease       435       70.0       64.7-74.9         Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis       4,251       59.3       57.2-61.3         Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3									
Do Not Have Angina or Coronary Heart Disease       6,154       62.4       60.7-64.1         Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis       4,251       59.3       57.2-61.3         Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3									
Previously Had a Stroke       243       65.2       55.9-73.5         Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis       4,251       59.3       57.2-61.3         Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3	<u> </u>								
Never Had a Stroke       6,385       62.8       61.1-64.4         Arthritis       2,332       72.0       69.6-74.2         No Arthritis       4,251       59.3       57.2-61.3         Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3	·								
Arthritis       2,332       72.0       69.6-74.2         No Arthritis       4,251       59.3       57.2-61.3         Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3	•								
No Arthritis       4,251       59.3       57.2-61.3         Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3									
Arthritis - Activities Limited       1,119       74.7       71.1-78.0         No Arthritis - Activities Limited       5,459       61.0       59.2-62.8         Physical, Mental, or Emotional Disability       1,525       69.1       65.7-72.3									
No Arthritis - Activities Limited5,45961.059.2-62.8Physical, Mental, or Emotional Disability1,52569.165.7-72.3				1					
Physical, Mental, or Emotional Disability 1,525 69.1 65.7-72.3									

Table 15 (continued) Overweight or Obese for Selected Health Behaviors and Conditions, 2005								
Health Behavior or Condition # Respondents or Obese 95% CI								
Disability with Special Equipment Needed	581	69.1	63.1-74.6					
No Disability with Special Equipment Needed	6,039	62.4	60.7-64.1					
Two or More Hours of TV Watched per Day	4,678	64.7	62.7-66.6					
Less Than Two Hours of TV Watched per Day	1,722	56.9	53.8-60.1					
Never Been Tested for HIV (18-64)	3,357	62.8	60.4-65.1					
Been Tested for HIV (18-64)	1,136	60.4	56.8-63.9					
Military Veteran	1,118	75.0	71.4-78.2					
Not a Military Veteran	5,514	60.5	58.6-62.3					

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005

### **OBESITY**

Definition: Obesity is defined as respondents who report having a Body Mass Index (BMI) of 30.0 or above. Body Mass Index (BMI) is calculated by taking a person's body weight in pounds divided by his or her height in inches divided by height in inches (again) times 703 (i.e., ((wt/ht)/ht x 703).

### **Prevalence of Obesity**

- South Dakota 25.5%
- Nationwide median 24.4%

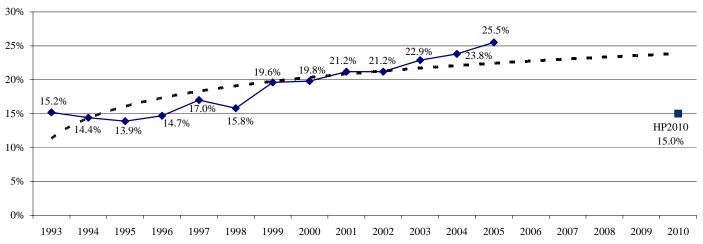
### **Healthy People 2010 Objective**

Reduce the proportion of adults aged 20 years and older who are obese to 15 percent.

### **Trend Analysis**

The percent of respondents who are obese was first asked in 1993 and has been increasing since 1998 when 15.8 percent of respondents were obese. There was an increase from 23.8 percent in 2004 to 25.5 percent in 2005. South Dakota did meet the *Healthy People 2010 Objective* of 15 percent from 1994 to 1996. However, in more recent years, South Dakota has been unable to reach the objective.

Figure 11 Percent of Respondents Who Are Obese Based on Body Mass Index, 1993-2005



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1993-2005

### **Demographics**

Gender

Males demonstrate a significantly higher prevalence of obesity than females. This difference is shown in a few demographic groups including whites, those in the southeast region, those with a household income of \$50,000 or more, and those who are married.

Age

The prevalence of obesity increases until the 55-64 age group is attained where it seems to reach a high and then declines from there as age increases. This includes a significant increase as the 25-34 age group is reached and a significant decrease as the 75 and older age group is reached. One minor gender difference is that females seem to reach a high later in life during the 55-64 age group while males reach their prevalence high at the 45-54 age group instead.

Race

American Indians exhibit significantly higher prevalence of obesity than do whites.

Region

Overall, those in the American Indian counties region show a very high prevalence of obesity, while those in the west region demonstrate a very low prevalence. However, the prevalence in females living in the southeast region is also very low.

Household Income The prevalence of obesity does not seem to follow a consistent pattern as household income increases. However, females in the higher income groups do demonstrate a lower prevalence of obesity than those in the lower income groups.

**Education** 

The prevalence of obesity generally decreases as education increases. This includes a significant decrease as the college graduate level is achieved.

**Employment Status** 

Those who are unable to work exhibit a very high prevalence of obesity, while those who are homemakers, students, or retired show a very low prevalence.

Marital Status Those who are married exhibit a very high prevalence of obesity, while those who are widowed show a very low prevalence.

Table 16 Respondents Who Are Obese, 2005									
		Tota			Male			Femal	e
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	6,644	25.5	(24.1-26.9)	2,818	28.2	(26.0-30.5)	3,826	22.8	(21.2-24.5)
Age									
18-24	313	15.6	(11.4-20.9)	124	16.1	(10.0-24.8)	189	15.1	(10.1-21.9)
25-34	847	25.3	(21.6-29.5)	364	28.1	(22.1-34.9)	483	22.3	(18.4-26.8)
35-44	1,100	28.2	(25.2-31.5)	493	31.3	(26.7-36.4)	607	24.9	(21.1-29.1)
45-54	1,289	30.8	(27.9-33.9)	614	35.9	(31.6-40.5)	675	25.3	(21.8-29.2)
55-64	1,128	32.3	(29.2-35.6)	512	34.4	(29.8-39.4)	616	30.0	(26.0-34.2)
65-74	950	27.1	(23.9-30.6)	403	28.3	(23.3-33.7)	547	26.1	(22.0-30.6)
75+	998	16.4	(13.8-19.3)	301	16.3	(12.1-21.8)	697	16.4	(13.4-19.9)
Race									
White	5,947	24.9	(23.4-26.3)	2,531	27.4	(25.1-29.8)	3,416	22.3	(20.6-24.1)
American Indian	481	40.8	(34.4-47.6)	195	41.6	(31.4-52.6)	286	40.0	(32.6-47.9)
Region									
Southeast	1,510	24.5	(21.9-27.3)	653	28.1	(24.0-32.5)	857	20.6	(17.7-23.9)
Northeast	1,472	27.0	(24.4-29.7)	590	29.6	(25.5-34.0)	882	24.6	(21.5-28.0)
Central	1,363	27.8	(25.0-30.8)	613	31.4	(27.0-36.1)	750	24.0	(20.7-27.5)
West	1,614	23.5	(20.9-26.2)	664	24.8	(20.9-29.3)	950	22.1	(19.0-25.5)
American Indian Counties	685	31.3	(26.7-36.3)	298	30.6	(23.9-38.2)	387	32.2	(26.3-38.6)
Household Income									
Less than \$10,000	356	30.4	(24.6-36.9)	101	26.1	(16.3-39.0)	255	32.4	(25.6-40.0)
\$10,000-\$14,999	451	27.3	(21.8-33.6)	131	27.4	(17.8-39.7)	320	27.2	(21.3-34.0)
\$15,000-\$19,999	466	25.0	(20.6-30.0)	177	29.0	(21.7-37.5)	289	22.1	(17.0-28.1)
\$20,000-\$24,999	617	25.2	(20.9-29.9)	248	26.2	(19.2-34.6)	369	24.3	(19.6-29.8)
\$25,000-\$34,999	918	26.9	(23.3-30.8)	411	25.1	(20.0-31.2)	507	28.8	(24.2-34.0)
\$35,000-\$49,999	1,196	27.5	(24.5-30.8)	562	30.0	(25.6-34.9)	634	24.7	(20.9-29.1)
\$50,000-\$74,999	1,014	25.4	(22.4-28.8)	496	30.2	(25.6-35.2)	518	19.7	(16.1-23.9)
\$75,000+	849	24.2	(20.8-28.0)	466	30.0	(25.0-35.5)	383	15.1	(11.5-19.7)

Table 16 (continued)										
Respondents Who Are Obese, 2005										
		Tota	l		Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
<b>Education</b>										
8th Grade or Less	309	29.6	(23.2-36.8)	151	29.8	(21.2-40.0)	158	29.3	(20.5-40.0)	
Some High School	394	26.6	(19.7-34.9)	173	27.9	(17.5-41.5)	221	24.8	(18.5-32.5)	
High School or G.E.D.	2,114	28.4	(26.0-31.0)	957	30.6	(27.0-34.5)	1,157	25.9	(22.9-29.2)	
Some Post-High School	1,900	26.3	(23.7-29.0)	712	29.6	(25.3-34.3)	1,188	23.5	(20.6-26.8)	
College Graduate	1,922	21.2	(19.0-23.5)	822	24.2	(20.8-28.1)	1,100	18.1	(15.6-20.9)	
Employment Status										
Employed for Wages	3,225	25.8	(24.0-27.8)	1,374	28.8	(25.9-31.9)	1,851	22.6	(20.4-25.0)	
Self-employed	876	28.2	(24.5-32.1)	600	30.7	(26.2-35.6)	276	22.0	(16.8-28.4)	
Unemployed	161	35.2	(23.0-49.6)	*	*	*	*	*	*	
Homemaker	384	24.5	(19.7-30.0)	*	*	*	*	*	*	
Student	124	12.6	(7.0-21.6)	*	*	*	*	*	*	
Retired	1,600	21.1	(18.9-23.6)	602	23.2	(19.5-27.3)	998	19.4	(16.8-22.3)	
Unable to Work	272	42.1	(35.0-49.6)	117	40.4	(29.7-52.0)	155	43.6	(34.4-53.3)	
Marital Status										
Married/Unmarried Couple	3,988	25.9	(24.4-27.6)	1,847	29.8	(27.4-32.3)	2,141	21.9	(19.9-23.9)	
Divorced/Separated	934	26.4	(23.2-29.9)	397	25.4	(20.7-30.6)	537	27.3	(22.9-32.1)	
Widowed	937	20.5	(17.6-23.7)	161	17.8	(10.8-27.8)	776	21.1	(18.1-24.5)	
Never Married	777	25.5	(21.0-30.7)	409	25.4	(19.1-33.0)	368	25.8	(20.1-32.4)	

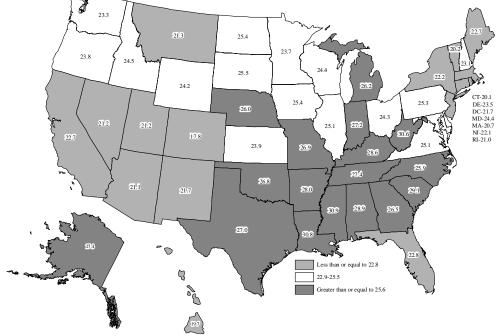
\*Results based on sample sizes less than 100 have been suppressed.

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005

### **National Statistics**

The national median for respondents who are obese was 24.4 percent. South Dakota had 25.5 percent of respondents who are obese. Colorado had the lowest percent of respondents who are obese with 17.8 percent, while Mississippi had the highest percent of respondents who are obese with 30.9 percent.

Figure 12 Nationally, Respondents Who Are Obese, 2005 25.4



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005

### **Further Analysis**

Following are data illustrating the percent of those who are obese for various health behaviors and conditions. For example, 50.1 percent of respondents who have diabetes are obese, while 23.8 percent of respondents who do not have diabetes are obese.

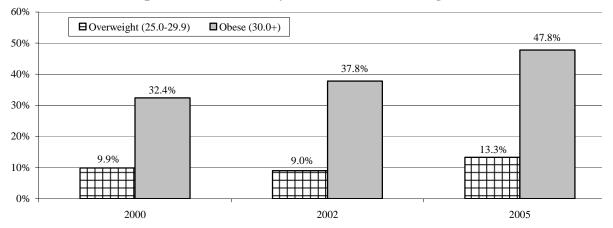
Table 17							
Obese Status for Selected Health Be			_				
Health Behavior or Condition	# Respondents	% Obese	95% CI				
Fair or Poor Health Status	1,086	38.2	34.4-42.3				
Excellent, Very Good, or Good Health Status	5,551	23.6	22.2-25.2				
Physical Health Not Good for 30 days of the past 30	498	36.2	30.9-42.0				
Physical Health Not Good for 0-29 days of the past 30	6,090	24.8	23.4-26.3				
Mental Health Not Good for 20-30 days of the past 30	343	28.5	22.6-35.3				
Mental Health Not Good for 0-19 days of the past 30	6,263	25.3	23.9-26.8				
Usual Activities Unattainable for 10-30 Days of the Past 30	450	35.8	30.6-41.3				
Usual Activities Unattainable for 0-9 Days of the Past 30	6,161	24.8	23.4-26.3				
Dissatisfied / Very Dissatisfied with Life	257	29.2	21.9-37.8				
Satisfied / Very Satisfied with Life	6,203	25.2	23.8-26.6				
No Leisure Time Physical Activity	1,690	33.3	30.5-36.3				
Leisure Time Physical Activity	4,953	23.3	21.8-24.9				
No Moderate Physical Activity	3,470	30.4	28.4-32.6				
Moderate Physical Activity	2,859	20.2	18.4-22.1				
No Vigorous Physical Activity	5,196	28.2	26.6-29.9				
Vigorous Physical Activity	1,248	17.1	14.6-19.8				
Less Than Five Servings of Fruits and Vegetables	5,039	26.0	24.4-27.6				
At Least Five Servings of Fruits and Vegetables	1,531	23.4	20.6-26.4				
Not Heard of "Healthy South Dakota" Program	4,316	25.7	23.9-27.4				
Heard of "Healthy South Dakota" Program	2,056	25.1	22.7-27.6				
Current Smoker	1,280	21.5	18.3-25.1				
Former Smoker	1,864	29.2	26.7-31.8				
Never Smoked	3,482	25.2	23.3-27.1				
Smokeless Tobacco Use	360	25.5	18.6-34.0				
No Smokeless Tobacco Use	6,097	25.5	24.1-26.9				
Drank Alcohol in Past 30 Days	3,575	23.7	21.9-25.6				
No Alcohol in Past 30 Days	3,059	28.0	25.9-30.1				
Binge Drinker	900	24.0	20.2-28.3				
Not a Binge Drinker	5,679	25.8	24.4-27.3				
Heavy Drinker	235	24.9	15.7-37.2				
Not a Heavy Drinker	6,308	25.5	24.1-26.9				
Hypertension	2,130	37.6	35.1-40.2				
No Hypertension	4,508	21.5	19.9-23.1				
High Blood Cholesterol	2,017	32.6	30.1-35.2				
No High Blood Cholesterol	3,303	24.7	22.8-26.6				
Not Taking any Precautions Against West Nile Virus	2,037	25.2	22.5-28.2				
Taking Precautions Against West Nile Virus	4,390	25.6	24.0-27.2				
No Health Insurance (18-64)	400	25.7	19.3-33.4				
Health Insurance (18-64)	4,098	26.5	24.8-28.2				
Employer Based Health Insurance Coverage (18-64)	2,680	25.3	23.4-27.4				
Private Health Insurance Plan (18-64)	618	23.2	19.0-28.0				
Medicare (18-64)	142	40.2	31.0-50.0				
Medicaid or Medical Assistance (18-64)	175	28.9	21.0-38.3				
The Military, CHAMPUS, TriCare, or the VA (18-64)	210	31.9	24.5-40.4				
The Indian Health Service (18-64)	226	37.9	29.0-47.6				

Table 17 (continued) Obese Status for Selected Health Behaviors and Conditions, 2005							
Health Behavior or Condition	# Respondents	% Obese	95% CI				
No Flu Shot (65+)	480	22.6	18.3-27.5				
Flu Shot (65+)	1,463	21.1	18.8-23.7				
No Pneumonia Shot (65+)	626	21.8	18.1-25.9				
Pneumonia Shot (65+)	1,258	21.0	18.5-23.8				
Diabetes	588	50.1	45.3-54.9				
No Diabetes	6,055	23.8	22.4-25.3				
Current Asthma	492	31.0	25.6-37.0				
Former Asthma	171	31.2	22.3-41.6				
Never Had Asthma	5,951	24.8	23.4-26.3				
Previously Had a Heart Attack	427	30.7	25.6-36.3				
Never Had a Heart Attack	6,177	25.2	23.8-26.7				
Have Angina or Coronary Heart Disease	435	27.4	22.8-32.6				
Do Not Have Angina or Coronary Heart Disease	6,154	25.4	24.0-26.9				
Previously Had a Stroke	243	31.3	24.3-39.1				
Never Had a Stroke	6,385	25.4	24.0-26.8				
Arthritis	2,332	34.1	31.8-36.5				
No Arthritis	4,251	22.1	20.5-23.9				
Arthritis - Activities Limited	1,119	40.1	36.4-43.8				
No Arthritis - Activities Limited	5,459	23.3	21.8-24.8				
Physical, Mental, or Emotional Disability	1,525	35.0	31.9-38.2				
No Physical, Mental, or Emotional Disability	5,092	23.2	21.7-24.8				
Disability with Special Equipment Needed	581	37.3	32.0-43.0				
No Disability with Special Equipment Needed	6,039	24.6	23.2-26.1				
Two or More Hours of TV Watched per Day	4,678	27.5	25.8-29.2				
Less Than Two Hours of TV Watched per Day	1,722	20.5	18.2-23.0				
Never Been Tested for HIV (18-64)	3,357	27.5	25.5-29.5				
Been Tested for HIV (18-64)	1,136	23.3	20.5-26.3				
Military Veteran	1,118	28.6	25.5-32.0				
Not a Military Veteran	5,514	24.9	23.3-26.4				

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005

Figure 13, below, displays the percent of respondents who were advised by a doctor to lose weight by respondents' current BMI classification. Overall, the percent for both overweight and obese respondents have been increasing since 2000.

Figure 13
Percent of Respondents Advised by a Doctor to Lose Weight, 2000, 2002, and 2005



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2000, 2002, and 2005